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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,193	01/19/2001	Ossi Kalevo	460-010109-US(PAR)	8734

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EXAMINER

DO, ANH HONG

ART UNIT PAPER NUMBER

2624

DATE MAILED: 03/16/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,193

Applicant(s)

KALEVO ET AL.

Examiner

ANH H DO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8, 11-14, 17-19 and 22-27 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 9, 10, 15, 16, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37
CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

"Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-3, 7, 8, 11-14, 18, 19, and 22-27 are rejected under 35 U.S.C. 102(a) as being anticipated by Takaota et al. (EP 0895424).

Regarding claims 1 and 8, Takaota discloses:

- means for dividing into blocks (col. 5, lines 28-30);
- means for performing spatial prediction for block C to reduce the amount of information to be transmitted, wherein at least one prediction method (i.e., interpolation) is defined, a classification is determined for at least one neighboring block D on the right side of said block C to be predicted according to the pixel value of block D and a prediction method is selected for the current block C on the basis of at least one said classification (Fig. 3(B) and col.15, lines 21-37).

Regarding claims 12 and 19, since these claims each is an apparatus claim corresponding to method claims 1 and 8, the discussion of claims 1 and 8 applies hereto.

Regarding claims 2 and 13, Takaota teaches classification is determined on the basis of directionally information (i.e., the right side) of the block C (Fig. 3(B)).

Regarding claims 3 and 14, Takaota teaches the directionally information of the block is determined by calculating at least one gradient value on the basis of pixel values of said block (see Fig. 5: pixel values 61 and 62).

Regarding claims 7 and 18, Takaota teaches at least two context classes are defined, therein mapping phase is performed, in which the classification information is mapped into one of said context classes (col. 24, lines 47-57, teaches right and left side classes and the classification information is assigned to one of said context classes).

Regarding claims 11 and 22, Takaota teaches a prediction error being coded and transmitted (col. 16, lines 24-29).

Regarding claims 23, 24, 25, 26 and 27, since these claims each recites the subject matters corresponding to those in claim 1, the discussion of claim 1 applies hereto.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaota et al. (EP 0895424) in view of Gonzales et al. (U.S. Patent No. 5,231,484).

Regarding claims 6 and 17, Takaota does not specifically teach 3 non-directional classes corresponding to flat, smooth and coarse texture blocks. One skilled in the art would have clearly recognized that the system of Takaota is to enhance the encoding efficiency (col. 1, lines 14-20).

Gonzales, in the same field of endeavor, teaches 3 non-directional classes corresponding to flat, smooth and coarse texture blocks (col. 10, lines 35-41 and col. 18, lines 52-56), wherein the classification in the encoding system of Gonzales is to improve the visual quality of compressed sequence (col. 10, lines 19-27).

Therefore, it would have been obvious to include 3 non-directional classes in Takaota as taught by Gonzales in order to improve the image quality by enhancing the encoding efficiency.

Allowable Subject Matter

7. Claims 4, 5, 9, 10, 15, 16, 20, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 4, 5, 15 and 16, the prior art, either taken singly or in combination, does not teach 8 formula with which the gradient values are calculated.

Regarding claims 9, 10, 20 and 21, the prior art, either taken singly or in combination, does not teach:

- calculating a value of the cost function for at least two prediction methods; exploring the calculated cost function values to find the minimum value, and selecting the prediction method which produces said minimum value for the cost function.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H DO whose telephone number is 703-308-6720. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K MOORE can be reached on 703-308-7452. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 8, 2004

A handwritten signature in black ink, appearing to read 'maull', with a long horizontal stroke extending to the right.

ANH HONG DO
PRIMARY EXAMINER